IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.	:	10/688,118
Inventor(s)	:	Kenneth D. Vinson
Filed	:	October 17, 2003
Art Unit	:	1731
Examiner	:	Dennis R. Cordray
Docket No.	:	9066M2
Confirmation No.	:	9231
Customer No.	:	27752
Title	:	PAPER SOFTENING COMPOSITIONS CONTAINING LOW LEVELS OF HIGH MOLECULAR WEIGHT POLYMERS AND SOFT TISSUE PAPER PRODUCTS COMPRISING SAID COMPOSITIONS

DECLARATION UNDER 37 CFR §1.132

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

I, Kenneth Douglas Vinson, hereby declare the following:

1. THAT, I am a named-inventor of the above-identified patent application;

2. THAT, I received Bachelor of Science Degree in Chemical Engineering from The University of Tennessee in 1977 and was employed by The Procter & Gamble Company, as a Research Fellow assigned primarily to Procter & Gamble's Paper Softeners project, the subject of the present application, from June 1999 until retirement in May 2007.

3. I am familiar with International Application No. WO 02/48458 A1 to Barnholtz et al. ("Barnholtz") and U.S. Patent 3,624,019 to Anderson et al. ("Anderson"). I have thoroughly reviewed Barnholtz and Anderson and it is my technical opinion that the claimed invention provides results that are well beyond what an ordinary practitioner would expect from the Barnholtz and Anderson references.

Barnholtz teaches a softening composition comprising an oil-in-water emulsion that may be sprayed onto the surface of a paper web. This softening composition was used on plant scale production lines. When used, the Barnholtz softening composition yielded inconsistent spray results due to variations in concentration of the polymer. This caused an inability to control the spray droplet size across the width of the web, i.e. at a given time. Some spray nozzles yielded excessively large droplets due to more viscous behavior, while other spray nozzles delivered a less viscous stream and displayed an aerosolized spray which tended to produce a mist which drifted away from the spray area without effectively depositing. In addition, high concentration polymer agglomerates tended to form and plug filters and nozzles reducing the reliability of the delivery and spray system. Finally, the polymer tended to settle in quiescent shipping and delivery containers causing a gradient of concentration of the polymer by location in the storage tank.

By comparison, when the claimed invention was used on the same plant scale, the claimed composition addressed all of the limitations found in attempts to implement the Barnholtz softening composition. Surprisingly, the polymer emulsion could be reversed directly into the softening composition forming a uniform softening composition even with relatively lower overall concentration of polymer than necessary with the Barnholtz composition. The claimed invention also had no observed tendency to settle or agglomerate so that each spray nozzle across the width of the applicator delivered substantially the same performance and the performance did not change with time. There was also no loss of reliability of the filtration or delivery system.

It is my opinion that the claimed invention provides the additional benefits because it allows the polymer in the composition to achieve a uniform conformational state, which was not achieved in Barnholtz. This was a surprising result to me because the polymer in Barnholtz was added to the Barnholtz composition without any difficulties and the composition, initially after preparation, appeared to be satisfactory. Prior to this discovery, it was believed that the mode of addition of the polymer to the composition did not have a very large impact on the composition as it would be used in practice.

I, being of at least ordinary skill in the art of paper softening, am not able to use the teaching of Barnholtz combined with Anderson to make a composition suitable for atomizing without excessive aerosolization in the form of an oil in water emulsion comprising: a continuous aqueous phase and a discontinuous oil phase wherein the rheology of the aqueous phase is modified by the addition of a water-in-oil emulsion

comprising: a high molecular weight polymer in a discontinuous aqueous phase and a continuous organic solvent phase.

4. With regard to the claimed invention of the above-named application, I submit that I have unexpectedly found that a softening composition suitable for atomizing without excessive aerosolization can be produced by inverting a water-in-oil emulsion, comprising a high molecular weight polymer in a discontinuous aqueous phase, and a continuous organic solvent phase into an oil-in-water emulsion comprising a continuous aqueous phase and a discontinuous oil phase. Before my discovery and invention, no one had taught such a composition.

I, Kenneth Douglas Vinson, declare that all statements made herein are true to the best of my knowledge, or if made upon information and belief, are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both under Section 1001 of Title 18 of the United States Code and that such willful false statements my jeopardize the validity of the application or any patent issued thereon.

This declaration is made with the knowledge that all statements made herein of my own knowledge are true, and that all statements made on information and belief are believed true, and further that willful false statements and the like are punishable by fine or imprisonment, or both under 18 USC §1001 and may jeopardize the validity of the application or any patent issuing thereon.

23 Apr 08
Date

Kenneth Douglas Vinson
Kenneth Douglas Vinson, Declarant

18 US 1001 Whoever, in any matter within the jurisdiction or any department or agency of the United States knowingly and willfully falsifies, conceals or covers up by any trick, scheme, or advice a material fact, or makes any false, fictitious or fraudulent statements or representations, or makes or uses any false writing or document knowing the same to contain any false, fictitious or fraudulent statement or entry, shall be fined not more than $10,000 or imprisoned not more than five years, or both.